

3/22/64/043/001/01/263  
1122/100

AUTHOR: Shchegolev, P. I., Popov, A. I., Vyryukhin, V. Ye., Tarasov, A. Ya.  
 TITLE: Elastic and inelastic scattering of protons by  $\text{Ne}^{22}$  nuclei  
 JOURNAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 43, no. 3(9), 1962, 747-751

NOTE: Cross sections were measured for elastic (proton energies 1.0-3.0 Mev) and inelastic (1.0-3.2 Mev) scattering,  $\text{Ne}^{22}(p,p)$ , through the angles  $0^\circ$ ,  $10^\circ$ , and  $45^\circ$  in the center-of-mass system and the angular distribution of the 1.03-Mev protons using an apparatus described by A. K. Valtier et al. (Rev. AN USSR, series fis., 23, 432, 1956) and P. V. Sorokin et al. (ZhETF, 42, 1255, 1961). The neon gas target was enriched to 97% with  $\text{Ne}^{22}$ . The results of these measurements were evaluated by the method of least squares under the following conditions: the resonance investigated is related to a single level. Only the least possible orbital momenta  $l$  and  $l'$  take part in the reaction. The  $\text{Ne}^{22}$  ground state has spin and parity  $0^+$ , the first excited state  $2^+$ . The

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S/056/62/043/006/012/067  
B102/B104

AUTHORS: Val'ter, A. K., Popov, A. I., Storizhko, V. Ye.

TITLE: Elastic scattering of protons from  $\text{Si}^{30}$  nuclei

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 43,  
no. 6(12), 1962, 2038 - 2041

TEXT: The differential elastic proton scattering cross-sections  $\sigma(\theta)$  were measured at the c.m. angles  $\theta = 90, 125, \text{ and } 141^\circ$  and at  $1 \leq E_p \leq 3.65$  Mev. The monochromatic ( $\pm 0.05\%$ ) protons used in the experiments were obtained from the electrostatic accelerator of the FTI AN USSR. The scattered protons were analyzed by a magnetic spectrometer and detected with a thin CsI(Tl) crystal. The proton current was determined with a beam-catcher and a current integrator. The thin  $\text{Si}^{30}$  target was prepared in a magnetic separator by introducing  $\text{Si}^{30}$  ions into spectrally pure graphite. In the energy range investigated, the  $\sigma(E_p)$  curves showed 52 resonances that can be related to excited states of the  $\text{P}^{31}$  nucleus. The most pronounced

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Elastic scattering of...

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resonances are analyzed in the single-level approximation of dispersion theory. Results: The excited 8.751-Mev level of  $P^{31}$  that corresponds to the resonance at  $E_p = 1514$  kev most probably has the characteristics  $l = 0$ ,  $J = 1/2^+$ . The resonance at  $E_p = 3202$  kev corresponds to the 10.385 Mev level with  $l = 2$  and most probably  $J = 5/2^+$ . The resonance at  $E_p = 3308$  kev corresponds to the 10.487 Mev level with the characteristics  $1/2^+$ . This resonance is due to a proton capture in the S-state. The resonance at  $E_p = 3438$  kev corresponds to the 10.614 Mev level with  $l = 2$  and  $J = 3/2^+$ . The cross-sections of the  $Si^{30}(p,p)Si^{30}$  reactions decrease with increasing  $E_p$ ; this decrease is most pronounced at  $\theta = 90^\circ$  and least at  $141^\circ$ . There are 4 figures and 1 table.

ASSOCIATION: Fiziko-tekhnicheskii institut Akademii nauk Ukrainskoy SSR  
(Physicotechnical Institute of the Academy of Sciences  
Ukrainskaya SSR); Khar'kovskiy gosudarstvennyy universitet  
(Khar'kov State University)

SUBMITTED: July 11, 1962  
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S/056/63/044/001/011/067  
B108/B180

AUTHORS: Val'ter, A. K., Storizhko, V. Ye., Popov, A. I.

TITLE: Elastic scattering of protons by  $Mg^{24}$  nuclei

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 44, no. 1, 1963, 57 - 62

TEXT: Protons with energies of 1450 - 4200 kev were extracted from an electrostatic accelerator and scattered by a target composed of 99% pure  $Mg^{24}$  on a spectroscopically pure graphite backing. The scattered protons were recorded on a magnetic spectrometer with a CsI(Tl) crystal and an FEU-19 (FEU-19) photomultiplier. The error was less than 3%. Resonances were observed at proton energies of 1495, 1624, 1670, 2015, 2410, 2920, 3140, 3669, and 4022 kev. These correspond to the  $Al^{25}$  levels with the excitation energies of 3.725, 3.850, 3.893, 4.224, 4.604, 5.093, 5.304, 5.812, and 6.151 Mev. According to the single-level approximation of dispersion theory, the broad resonance at  $E_p = 3140$  kev is due to proton capture in a state with  $l = 0$ . The corresponding  $Al^{25}$  level (excitation Card 1/2

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energy 5.304 Mev) is a  $1/2^+$  level. The spin and parity of the 5.812-Mev level are  $3/2^+$  or  $5/2^+$ , those of the 6.151-Mev level are  $3/2^+$ . The protons are captured onto this level in a state with  $l = 2$ . The characteristics of the remaining  $Al^{25}$  levels with excitation energies of less than 5 Mev agree with the results of earlier papers. There are 2 figures and 2 tables. The most important English-language references are: P. M. Endt, C. M. Branns. Rev. Mod. Phys., 29, 683, 1957; A. E. Litherland et al. Can. J. Phys., 36, 378, 1958; H. W. Lewis, W. T. Joyner. Bull. Am. Phys. Soc. Ser., 11, 280, 1956.

ASSOCIATION: Khar'kovskiy gosudarstvennyy universitet (Khar'kov State University); Fiziko-tehnicheskii institut Akademii nauk USSR (Physicotechnical Institute of the Academy of Sciences UkrSSR)

SUBMITTED: July 10, 1962

Card 2/2

VAL'TER, A.L.; STORIZHKO, V.Ye.; POPOV, A.I.

Elastic proton scattering by  $Mg^{24}$  nuclei. Zhur. eksp. i teor. fiz.  
44, no.1:57-62 Ja '63. (MIRA 16:5)

1. Khar'kovskiy gosudarstvennyy universitet i Fiziko-tekhnicheskoy  
institut AN UkrSSR.  
(Protons—Scattering) (Magnesium)

STOBILOV, V. Ye.; POLOV, A. I.

"Levels of  $P^{3+}$  from  $Si^{28}(p,p)Si^{28}$ ."

"Elastic Scattering of Protons by Nuclei  $Ar^{36}$ ."

reports submitted for All-Union Conf on Nuclear Spectroscopy, Tbilisi, 19-20 Feb 69.

KIPTI [Ukrainian Physics Technical Inst, Kharkov]

STORIZENKO, V. Ye.; POPOV, A.I.

Elastic scattering of protons by  $\text{Ar}^{36}$  nuclei. Izv. AN SSSR.  
Ser. fiz. 28 no.7:1145-1151 J1 '64 (MIRA 17:8)

$p^{30}$  levels manifesting themselves in the  $\text{Si}^{29}(p,p)\text{Si}^{29}$   
reaction. Ibid. 1152-1155

1. Fiziko-tekhnicheskiy institut AN UkrSSR.



REF ID: A66048/66/030/02/013/0111

AUTHOR: Stetsko, V.Ye.; Kabanichev, G.I.; Petrov, A.I.; Slabospitskiy, R.P.

INSTITUTION: Institute of Physics, Academy of Sciences, USSR (Fiziko-matematicheskiy Institut Akad. Nauk SSSR)

TITLE: Inelastic scattering of protons by Ne-21. Spin and parity of the first excited state of Ne-21. Report, Fifteenth Annual Conference on Nuclear Spectroscopy and Nuclear Structure, held at Minsk, 25 January to 2 February 1965/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no. 2, 1966, 240-254

TOPIC TAGS: proton scattering, inelastic scattering, gamma ray, nuclear energy level, neon,

ABSTRACT: The inelastic scattering of 1 to 3 MeV protons on Ne<sup>21</sup> was investigated in order to obtain information concerning the excited states of the Ne<sup>22</sup> compound nucleus and to determine the spin and parity of the 350 keV first excited state of Ne<sup>21</sup>. An enriched (30% Ne<sup>21</sup> and 70% Ne<sup>20</sup> and Ne<sup>22</sup>) target of neon embedded in a 0.1 mm thick tantalum substrate was employed. The 90° yield of 350 keV gamma rays was determined as a function of incident proton energy. Some 60 resonances were observed, and the energies, widths, and relative intensities of 24 of them are tabulated. The resonances at proton energies below 2.3 MeV were mostly well separated, and their energies

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ACC NR: AP6019615

were determined with an accuracy of 5 keV; the resonances at higher proton energies were not well separated and they were not investigated further. Angular distributions of the 350 keV gamma rays associated with the different resonances were measured and the coefficients  $A_2$  and  $A_4$  in the expression  $1 + A_2 P_2(\cos \theta) + A_4 P_4(\cos \theta)$  for the angular distribution are tabulated for 19 of the resonances. For all but 7 of the resonances the value obtained for  $A_4$  was less than its probable error, and for only one of the resonances did  $A_4$  exceed its probable error by as much as a factor 2. From that it is concluded that the spin of the 350 keV level does not exceed 5/2. Theoretical angular distributions were calculated with different assumptions concerning the spin and parity of the 350 keV  $\text{Ne}^{21}$  level and the characteristics of the  $\text{Na}^{22}$  states and are discussed at length in connection both with the present measurements and with data in the literature. It is concluded that the spin and parity of the 350 keV  $\text{Ne}^{21}$  level are 5/2<sup>+</sup>. The authors thank M.I. Guseva for providing the  $\text{Ne}^{21}$  target. Orig. art. has: 2 formulas, 2 figures and 4 tables.

SUB CODE: 20 SUBM DATE: 00 ORIG. REF: 003 OTH REF: 009

Card 2/2

STOKK P  
HOENIG, V.; STOKK, A.

[Study of plasma volume in shock states] Príspevek ke studiu plasma-  
tickeho volumu a sokovych stavu. Cas.lek.cesk. 89 no.13:361-369 31 Mr '50.  
(CLML 19:1)

1. Of the First Internal Clinic of Charles University (Head -- Prof.  
Kr. Rynek, M.D.) and of the Central Biochemical Laboratories (Head --  
Prof. Jar. Jorejsi, M.D.)

HOMNIG, V; STORK, A.

Significance of certain circulatory modifications in liver  
cirrhosis. Cas. lek. cesk. 89 no.39:1071-1075 29 Sept. 1950.  
(CJML 20:1)

1. Of the First Internal Clinic of Charles University (Acting  
Head--Prof. Vr. Jonas, M. D.).

The influence of central nervous system on the Sheariz  
man phenomenon. A. Bock and A. K. (1964) (1964)  
trans. (1964) (1964) (1964) (1964) (1964) (1964)  
(1964) (1964) (1964) (1964) (1964) (1964)  
The Sheariz man phenomenon is a clinical entity  
was suppressed by peripheral anesthesia (topical, oral) and  
by topical administration of anticholinergic drugs.  
Parenteral administration of atropine (1 mg) and  
10/24-methylcholine (10 mg) produced a marked effect  
factually possible. (1964) (1964) (1964) (1964) (1964)  
of procedure was ineffective. (1964) (1964) (1964) (1964) (1964)

STORK, A.; KOVARIKOVA, A.

Effect of the Central nervous system on Shwartzman phenomenon.  
Cas. lek. cesk. 93 no.36-37:982-983 10 Sept 54.

1. I. interni klinika, Prednosta prof. Dr. M. Netoušek.  
(ALLERGY, experimental,  
Shwartzman phenomenon, role of CNS)  
(CENTRAL NERVOUS SYSTEM, physiology,  
in Shwartzman phenomenon)

STORL, Alois, MUDr

Clearing factor and its relation to heparin; determination of clearing capacity of the plasma with the aid of diluted milk.  
Čes. lek. česk. 93 no.50:1387-1388 10 Dec 54.

1. Asistent I. interni kliniky, přednosta prof. Dr Milos Netousek.  
    (BLOOD,  
        lipemia clearing factor, determ. with diluted milk)  
    (MILK,  
        determ. of lipemia clearing factor with diluted milk)

STORK, Alois, MUDr.; KUCEROVÁ, Ludmila, MUDr.

Clearing factor of blood plasma after heparin in relation to atherosclerosis. Čas.lék. česk. 95 no.11:283-286 1956.

1. Z I kliniky nemoci vnitřních, přednosta prof. MUDr Milos Netousek.

(HEPARIN, eff.

clearing factor of blood plasma in atherosclerosis)

(PLASMA

clearing factor after heparin inject. in atherosclerosis)

(ARTERIOSCLEROSIS

atherosclerosis, clearing factor of blood plasma after inject. of heparin)



STORK, Alois, MUDr.; KUCEROVÁ, Ludmila, MUDr

Value of blood lipase before and after heparin injections.  
Cas. lék. Česk. 95 no.11:286-287 1956.

1. Z I. kliniky nemoci vnitřních, přednosta prof. MUDr  
Milos Netousek.

(LIPASES, in blood  
eff. of heparin on quality)

(HEPARIN, eff.  
on blood lipase quality)

(BLOOD  
lipase, eff. of heparin on quality)

STORK, A.; KUCEROVA, L.

Clearing factor of blood plasma in diabetics after heparin injection. Cas. lek. cesk. 95 no.40:1106-1108 5 Oct 56.

1. I. interni klinika Korlovy university v Praze. Prednosta prof. MUDr. M. Netousek, lekářských věd.

(DIABETES MELLITUS, blood in

eff. of heparin on plasma clearing factor (Cz))

(HEPARIN, eff.

on plasma clearing factor in diabetes mellitus (Cz))

(PLASMA

clearing factor in diabetes mellitus, eff. of heparin (Cz))

EXCERPTA MEDICA Sec 20 Vol 2/7 Gerontology July 59

925. The clearing effect of blood plasma and the plasma cholesterol level following i.v. injection of heparin. Die Klärungsfähigkeit des Blutplasmas und Veränderungen des Plasmacholesterinspiegels nach intravenöser Heparininjektion bei Diabetikern und Atherosklerotikern. Storck A. and Kuterová L. 1. Med. Klin., Karls-Universität, Prag *Dtsch. med. Wschr.* 1957, 82/35(1) (1410-1413) Graphs 1 Tables 7

The lipaemia-clearing effect of a single i.v. injection of heparin was studied in diabetic and atherosclerotic patients and in 20 controls. The mean clearing factor activity in the control material was 20.03%. In 22 diabetic and 15 atherosclerotic patients the mean values were 14.71 and 4.22% respectively. In the diabetic group, however, 8 patients with manifest atherosclerosis had a mean value of only 2.03% while the remaining 14 patients in this group showed unexpectedly high values (mean 21.98%). A single injection of heparin gave no significant lowering of the plasma cholesterol level.

Björnesjö - Karlstad (11, 6, 18, 20)

STORCK, A.; KUCEROVA, L.

Relation of the clearing factor of blood plasma after heparin to cholesterolemia. Sborn. lek. 59 no.4:112-116 Apr 58.

I. I. interni klinika fakulty vseobecneho lekarstvi Karlovy university v Praze, prednosta prof. Dr. Milos Netousek. A. S. Praha 11-499-1. interni klinika.

(LIPASES

lipoprotein lipase, relation of cholesterolemia (Cz))

(CHOLESTEROL, in blood

relation to lipoprotein lipase (Cz))

STORK, A.; KUCEROVA, L.

Extraction of free & bound cholesterol after heparin injection in normal & atherosclerotic patients. Cas. lek. cesk. 97 no.10:319-323  
7 Mar 58.

1. I. interni klinika Karlovy university v Praze, prednosta prof.  
Dr. Milos Netousek. A. S., Praha 2, U Nemocnice 2.

(CHOLESTEROL, in blood

in arteriosclerosis, eff. of heparin (Cs))

(ARTERIOSCLEROSIS, blood in

cholesterol, eff. of heparin (Cs))

(HEPARIN, eff.

on blood cholesterol in arteriosclerosis (Cs))

KUCHEROVA, L.; STORCK, A.; FABIAN, E.

Determination of clearing factor. Cas. lek. cesk. 98 no.13:398-401  
27 Mar 59.

1. I. interni klinika KU v Praze, prednosta prof. dr. M. Netousek.  
(LIPASE, in blood  
lipoprotein lipase in normal & arteriosclerotic patients  
(Cs))  
(ARTERIOSCLEROSIS, blood in  
lipoprotein lipase (Cs))

STOIK, A.; KUCEROVA, L.; FABIAN, E.

Lipoprotein changes after heparin injection in relation to the clearing factor. Cas. lek. cesk. 98 no.13:401-403 27 Mar 59.

1. Statistické zpracování: Ing. František Fabian.

(LIPASES, in blood

lipoprotein lipase in normal & arteriosclerotic patients  
(Cz))

(ARTERIOSCLEROSIS, blood in  
lipoprotein lipase (Cz))

KUCEROVA, L.; STORCK, A.; YABIAN, E.

Trial therapy of atherosclerosis with anzyme preparations. I. Clinical part. Cas. lek. cesk. 98 no.13:403-407 27 Mar 59.

1. I. interni klinika KU v Praze, prednosta prof. dr. Milos Netousek.  
(ARTERIOSCLEROSIS, ther.  
vasolastine, statist. (Cs))  
(ENZYMES, ther. use  
vasolastine in arteriosclerosis, statist. (Cs))



S.ORK, A.; KUCEROVA, L.; FABIAN, Ya. .

Factor of clarification in the pathogenesis of atherosclerosis.  
Klin. med. 38 no. 2:54-62 F '60. (MIFA 14:1)  
(ARTERIOSCLEROSIS) (LIPOPROTEINS)

STORK, A.; KUCEROVA, L.; FABIAN, E.

Experience with the treatment of atherosclerosis with an enzymatic preparation. Part II. Changes of biochemical indices. Cas.lek. cesk. 99 no.7/8:427-251 19 F '60.

1. I. interni klinika KU v Praze, prednosta prof. MUDr. Milos Netousek.

(ARTERIOSCLEROSIS ther.)  
OXIDASES ther.)

KOVARIKOVA Alena L.; STORK, Alois

Pharmacology and clinical use of lanatoside D. Cas.lek.cesk 100 no.21:  
653-657 26 My '61.

1. Vyskumny ustav prioridnich leciw, I interni klinika lekarske fakulty  
KU, Praha.

(DIGITALIS)

KUCEROVA, L.; STOKA, A.

Some changes in metabolism of lipids in kidney diseases. I.  
Nephrotic syndrome. Cas. lek. cesk. 101 no.20:618-623 18 May '62.

1. I interni klinika lekarske fakulty KU v Praze, prednosta prof.  
dr. V. Hoenig, DrSc.

(NEPHROTIC SYNDROME metabolism)  
(LIPIDS metabolism)

STORK, Alois; KUCEROVA, Ludmila

Postheparin esterase and clearing factor in liver diseases. Cas.  
lek. cesk. 101 no.27:833-836 6 J1 '62.

1. I interni klinika fakulty vseobecneho lekarstvi KU v Praze, prednosta  
prof. dr. V. Hoenig, DrSc.

(LIVER DISEASES blood) (ESTERASES blood)  
(HEPARIN pharmacol)

KUCEROVA, L.; STORCK, A.

Idiopathic hyperlipemia. Cas. lek. cesk. 101 no. 38:lek Ved Zahr:185-190 21  
S '62.

1. I. interni klinika fakulty vseobecného lékařství KU v Praze,  
prednosta prof. dr. V. Hoenig DrSc.  
(BLOOD LIPIDS)

KUCEROVA, L.; STORK, A.

Some changes of fat metabolism in kidney diseases. II. Glomerulonephritis. Cas. lek. cesk. 101 no.38:1137-1140 21 9 '62.

1. I interni klinika fakulty vseobecneho lekarstvi KU v Praze,  
prednosta prof. dr V. Hoenig, DrSc.  
(LIPID METABOLISM) (GLOMERULONEPHRITIS)

7  
KUBICKA, A., KUCERA, L., and VOLAK, V., with technical cooperation  
of PRANEK, M., R., of the First Clinic of Internal Medicine (I. Interni  
klinika), Faculty of General Medicine (Fakulta vseobecného lékař-  
ství), Charles University, Prague, Prof. V. HOENIG, MD, director.

"Effect of heparin on the Activity of Serum Transaminases"

Prace, Všeobecná lékařská, Vol CII, No 17, 26 April 63, pp 441-

Abstract (Authors' English summary): The activity of SGOT and SGPT  
before and after intravenous injection of heparin was studied in 40  
subjects. Out of this number eight subjects served as a control group,  
eleven suffered from glomerulonephritis, four from diabetes, five from  
idiopathic hyperlipaemia, and twelve from hepatic disease. No signifi-  
cant change in the activity of these enzymes could be observed in any  
of the patients. An apparent increase of SGOT and SGPT activity in two  
patients suffering from idiopathic hyperlipaemia was caused by in-  
creased turbidity of the reacting mixture during incubation. Twenty-one  
references, including nine Czech.



STONK, A.; KUCEROVA, L.; VOLEK, V.; technicka spoluprace PAPEZOVA, R.

Effect of heparin on the activity of serum transaminases. Cas. lek.  
cesk. 102 no.17:441-444 26 Ap '63.

1. I. interni klinika fakulty vseobecneho lekarstvi KU v Praze,  
prednosta prof. dr. V. Hoenig.  
(HEPARIN) (PHARMACOLOGY) (ALANINE AMINOTRANSFERASE)  
(ASPARTATE AMINOTRANSFERASE) (BLOOD CHEMICAL ANALYSIS)  
(GLOMERULONEPHRITIS)

KUCEROVA, L.; STORK, A.; FABIAN, E.

Clinical manifestation of idiopathic hyperlipemia. Cas. lek.  
cesk. 102 no. 51:1393-1400 20 D'63.

1. I. interni klinika fakulty vseobecneho lekarstvi KU v  
Praze; prednosta: prof. dr. V. Hoenig, DrSc.

\*

STORK, A.; KUCEROVA, L. FABIAN, E.; technicka spolupracce: TAFEROVA, B.

Activity of lipoprotein lipase and postheparin esterase in  
idiopathic hyperlipemia. Cas.lek.cesk. 102 no.52:1109-1112  
27 D'63.

1. I. interni klinika fakulty vseobecneho lekarstvi KU v  
Praze; prednosta: prof.dr. V.Hoenig, Dr.Sc.

\*

FABIAN, E.; STORK, A.; KUCEROVA, L.

Genealogy in essential hyperlipemias of adults. Acta univ.  
Carol. [med] (Praha):Suppl. 18: 171-176 '64.

1. I. Interni klinika fakulty vseobecneho lekarstvi University  
Karlovy v Praze (prednosta: prof. dr. V Hoenig)

STORK, A.; KUCEROVA, L.

Some metabolic changes in idiopathic hyperlipemia. Cas.lek.  
cesk. 103 no.2:43-45 10 Ja'64.

1. I. interni klinika fakulty vseobecneho lekarstvi KU v  
Praze; prednosta: prof.dr. V.Hoenig. DrSc.

\*

KUCEROVA, L.; STORK, A.; FABIAN, E.. Technická spolupráce: TALOROVA, B.;  
PAPEZOVA, R.

Effect of diet containing sunflower oil on the course of  
idiopathic hyperlipemia. Cas.lek. cesk. 105 no.9:230-234  
28 Feb.

1. I. interni klinika fakulty vseobecneho lekarsti KU v  
Praze; prednostai: prof.dr. V.Koenig, Dr.Sc.

★

FABIAN, E., (Praha 2, U nemocnice 2); KUCEROVA, I.; SECKE, A.

Some indicators of lipid metabolism in diabetes mellitus.  
Cas. lek. Cesk. 104 no.43:1186-1189 29 Oct '65.

I. I. interni klinika fakulty vseobecneho lekarstvi Karlovy  
University v Praze (prednosta prof. dr. V. Hoenig, DrSc.).  
Submitted Oct. 1964.

1. 1. Interní klinika fakulty všeobecného lékařství Karlovy

Univerzity v Praze (předmět prof. dr. V. Heonig, IrDe.).



FABIAN, E.; KOBILKOVA, J.; KUCEROVA, L.; STURK, A.; SICHAROVA, J.

The influence of estrogens on the action of postheparin esterase.  
Cas. lek. Cesk. 104 no.47:1301-1302 26 N '65.

1. I. interni klinika fakulty vseobecneho lekarstvi Karlovy University v Praze a Laborator pro patofyziologii krvetvorby a jater pri I. interni klinice (prednosta prof. dr. V. Hoenig, DrSc.) a  
I. gynecologicko-porodnicka klinika fakulty vseobecneho lekarstvi Karlovy University v Praze (prednosta prof. dr. K. Klaus, DrSc.).

CHADWICK, MARIA

KUBICKA, L.; KOENIG, V.; JANDAN, A.; JIRSA, M.; SPOK, A.; 1st Internal Clinic, Faculty of General Medicine, Charles University (I. Interni Klinika Fakulty Všeobecného Lekarství KU), Prague, Laboratory for Pathophysiology of Blood Formation and Liver Diseases at the 1st Internal Clinic (Laborator pro Patofyziologii Krvetvorby a Jater při I. Interni Klinice), Head (Prednosta) Prof Dr V. KOENIG.

"Evaluation of the Changes in Non-esterified Fatty Acids in the Plasma in Clearing Reactions."

Prague, Casopis Lekarů Českých, Vol 105, No 24-25, 17 Jun 66, pp 681 - 682

Abstract: The increase in non-esterified fatty acids (NEF) in the clearing reaction in vivo was investigated; the possibility of the determination of the content of NEF by finding the concentration of albumin using bromosulphophthalein was studied. 23 healthy subjects were used in the experiments; it was found that the bromosulphophthalein method cannot be used to determine plas-matic concentration of NEF; the increase in their content can however, be determined in this way. 1 Figure, 5 Western, 6 Czech references.  
1/1

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CASOPIS LOKVANIA

UDC 615.36(612.115.35):612.12(577.153.084)

FABIAN, E.; KUCEROVA, L.; SPORE, A.; SPENAROVA, J.; 1st Internal Clinic, Faculty of General Medicine, Charles University (I. Int. Klinika Fak. Vseob. Lek. KU), Prague; Laboratory of Pathophysiology of Blood Formation and Liver Diseases at the 1st Internal Clinic (Laborator pro Patofyziologii Krvetvorby a Jater pri I. Interni Klinice), Prague, Head (Prednosta) Prof Dr V. HOENIG.

"Relationship Between Postheparin Lipolytic and Esterase Activity in Healthy Men and Women."

Prague, Casopis Lekaru Ceskych, Vol 105, No 38, 16 Sep 66, pp 1030 - 1032

Abstract [Authors' English summary modified]: A group of healthy men and women was examined; the content of the free fatty acid plasma before and after the administration of heparin was determined. Activity of postheparin esterase and of lipoprotein lipase in vitro was determined. The relationship between the free fatty acids and lipoprotein lipase in vitro is discussed. Postheparin esterase activity is different in men and in women. No relationship between lipolysis in vivo and lipoprotein lipase activity in vitro was found. 1 figure, 11 Western, 7 Czech references. (Manuscript received Dec 65).

3

Vanadium in the Acid Steelmaking Process and Its Desulfurizing Capacity. L. A. Papisov and H. W. Stark. *Met. in Trans. Technol.*, 1962, 2, 161-163, 164. The authors discuss the reaction of vanadium with sulfur and phosphorus in the acid steelmaking process. The authors conclude that the maximum desulfurizing capacity of vanadium is 1.5 g V/kg Fe.

DL  
Met

Stork, J.

Stork, J. Chinese institutes engaged in construction research. p. 189.

Vol. 4, no. 3, 1956  
STAVENICKÝ GASOLIS  
TECHNOLOGY  
Czechoslovakia

So. East European Accessions, Vol. 6, May 1957

U.S. 5

Stavba, J.

"Research in the Institute of Building and Architecture of the Slovak Academy of Sciences."

p. 197 (Stavba) Vol. 4, no. 7, July 1957  
Prague, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4,  
April 1958

101227/Chemical Technology - Chemical Processes and Their  
Application. Ceramics. Glass. Binders. Concrete.

W-13

Abs Jour : Ref Zhur - Khimiya, No 8, 1958, 25983

Author : Stork Juraj

Inst : -

Title : Some Correlations Between Composition and Consistence  
of Concrete Mix.

Orig Pub : Inz-in i budovn., 1957, 14, No 7, 259-264

Abstract : In connection with the building of hydraulic works in  
Slovakia a study was made of the effects of different  
factors on the behavior of concrete mix. On a change  
in the sand : gravel (S:G) ratio a change takes place  
in the consistency of concrete produced with a small  
expenditure of cement. In concrete containing larger  
proportions of cement a change in S:G ratio has little  
effect. With a water/cement ratio of 0.71 (cement con-  
tent 200 kg/m<sup>3</sup>) the optimal amount of sand is shifted

Card 1/2

- 30 -

11. 1.

1. Jiro's Sho Kana Shikabuchi betoni (Elements and Composition of a  
Kana Shikabuchi): a book review.

1. 1. (Shikabuchi) Vol. 1, No. 1, Aug. 1955, 1st ed., Buchonkwaia

2. Monthly Index of the European Commission (ECI) Vol. 1, No. 11 November 1955



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URBANCZYK, Vladislav, inz.; HOLLER, Jaroslav, inz.; STORK, Jaromir, inz.

Reconstruction of the headgear at the Gottwald mine in Ostrava-Marovna coal field. Uhl 5 no.6:195-198 Je '63.

1. Dul President Gottwald (for Urbanczyk). 2. Zavody V.I. Lenina, Plzen (for Holler and Stork).

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

ACC NR: AP6026637

SOURCE CODE: CZ/0034/66/000/004/0294/0294

INVENTOR: Kaldrovits, J. (Doctor of natural sciences); Stork, J. (Doctor; Engineer; Doctor of sciences)

ORG: none

TITLE: Pendulum hardness gage. Class 42k, No PV 755-65

SOURCE: Hutnicke listy, no. 4, 1966, 294

TOPIC TAGS: hardness, pendulum, mechanical measuring tool

ABSTRACT: The article is a summary of Czechoslovak Patent Application Class 42k, 36/04, PV 755 - 65, dated 4 Feb 65. The basis of the invention is the measurement of a penetration of a diamond point in investigated materials. The diamond is connected to a fly wheel. Two factors are measured to determine the hardness: one is the slowing down of the pendulum, and the other the volume of the material dislodged from the tested sample by the diamond point. Orig. art. has: 1 figure. [JPRS: 36,646]

SUB CODE: 20 / SUBM DATE: none

Cord 1/1

0976 2320

1/ 2 / 1 / 1  
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1/ 2 / 1 / 1 (unclassified) 1/ 2 / 1 / 1  
1/ 2 / 1 / 1, 1/ 2 / 1 / 1, 1/ 2 / 1 / 1

STORKAN, F.

Czechoslovakia

Transformation der Koordinaten zwischen den Nachbarzonen der Gaussabbildung in der Praxis (tschech.) 8. 73-76

80: Vermessungs Technik, Nov 1955, Uncl.

STORKAN, Frantisek, inz.

Information and publicity serving new technology in  
geodesy and cartography. Geog kart obzor 2 no.2:24-27  
F '56.

1. Ustredni sprava geodesie a kartografie.

"APPROVED FOR RELEASE: 08/26/2000

CIA-RDP86-00513R001653410013-7

APPROVED FOR RELEASE: 08/26/2000

CIA-RDP86-00513R001653410013-7"

KASIK, Ivan, *ing.*; STOKAN, Zdenek, *ing.*; STANEK, Jiri

Electroning remelting of steel and alloys in the Soviet  
Union. *Izv. Vuzov* 19 no.5:311-318 My '64

1. Research Institute of Iron Metallurgy, Prague (for Kasik  
and Staneek). 2. Spojena doelarny, Kladno (for Stokan).



Country : CZECHOSLOVAKIA  
Category: Plant Diseases. Diseases in Cultivated Plants.

Abs J ur: RZhSic1., No 12, 1950, No 82683

Author : Kozda, Vachar; St. Mikulova, Jana  
Inst : -  
Title : Stem Bumps with Adventitious Roots in Kohlrabi  
(Brassicaoleracea L. var. gongylodes L.)

Orig pub: Ceskosl. bic1., 1957, 6, No 470-474

Abstract: In Prague and its environs during the 1st summer months of 1955-1956 kohlrabi stalks displayed small bulges to which adventitious roots were attached. The young tubercles consisted of several nodes, and the old ones were in the form of hemispheres with a diameter of 4 - 6 mm. Adventitious roots grew out

Card : 1/2

Country : CZECHOSLOVAKIA  
Category: Plant Diseases. Diseases in Cultivated Plants.

APPROVED FOR RELEASE: 08/26/2000

CIA-RDP86-00513R001653410013-7"

Abs J ur: RZhSic1., No 12, 1950, No 82683

from the tubercles which came in contact with the ground or which were covered with moist soil during banking. Two types of bacteria were isolated from the bumps, namely - Gram-negative and Gram-positive rods. Their participation in the emergence of the tubercles and roots was not proved. -- G. I. D'yakova

Card : 2/2

DOBERSKY, P.; PECHOVA, I.; HORACKOVA, E.; PARIZKOVA, J.; VAVRINKOVA, H.;  
techn. spoluprace KLUSONOVA, H.; STORKOVA, H.

Metabolism in obese subjects. Cesk. gastroent. vyz. 16 no.3/4:230-237  
Ap '62.

1. Ustav pro vyzkum vyživvy lidu v Praze, reditel doc. MUDr. J. Masek,  
DrSc.

(DIET REDUCING)

HEYMAN, Kazimierz; DAWIDOWSKA, Irena; STORKOWSKA, Lucyna

Brucellosis in workers of dairy industry and of milk-collection centers  
in the Poznan province. Przegl. epidem., Warsz. 12 no.2:147-150 1958.

1. Z Działu Epidemiologii Woj. Stacji San. -Epid. w Poznaniu Kierownik  
Działu: dr med. K. Heyman Dyrektor Stacji: dr med St. Orszynka.

(BRUCELLOSIS, epidemiology,  
in dairy workers (Pol))

(OCCUPATIONAL DISEASES,  
brucellosis in dairy workers (Pol))

RYNDIN, R.M.; STORODINSKIY, Ya.A.

Unitarism correlations for elastic collisions of particles having  
arbitrary spins. Zhur. eksp. i teor. fiz. 32 no.6:1584-1585 Ja '57.  
(MLBA 10:8)

1. Ob'yedinennyy institut yadernykh issledovaniy.  
(Collisions (Nuclear physics))

177  
PHASE I BOOK EXPLOITATION

1145

Gol'danskiy, Vitaliy Iosifovich and Leykin, Yevgeniy Moiseyevich

Prevrashcheniya atomnykh yader (Transformations of Atomic Nuclei) Moscow,  
Izd-vo AN SSSR, 1958. 425 p. 20,000 copies printed.

Resp. Ed.: Storodinskiy, Ya. A.; Eds. of Publishing House: Mazin, I.P.  
and Chernyak, L.Ye.; Tech. Ed.: Prusakova, T.A.

PURPOSE: This book is intended for readers who have a knowledge of physics and who wish to increase their knowledge of the basic problems of nuclear physics.

COVERAGE: The book deals with the properties of atomic nuclei and elementary particles, models of atomic nuclei, methods and means for carrying out and observing nuclear reactions, detailed descriptions of methods of using nuclear reactions to obtain information on the structure of nuclei, and descriptions of the reactions used to obtain atomic energy - fission chain reactions and thermonuclear reactions. There are 14 Soviet references.

Card 1/4

Transformations of Atomic Nuclei

1145

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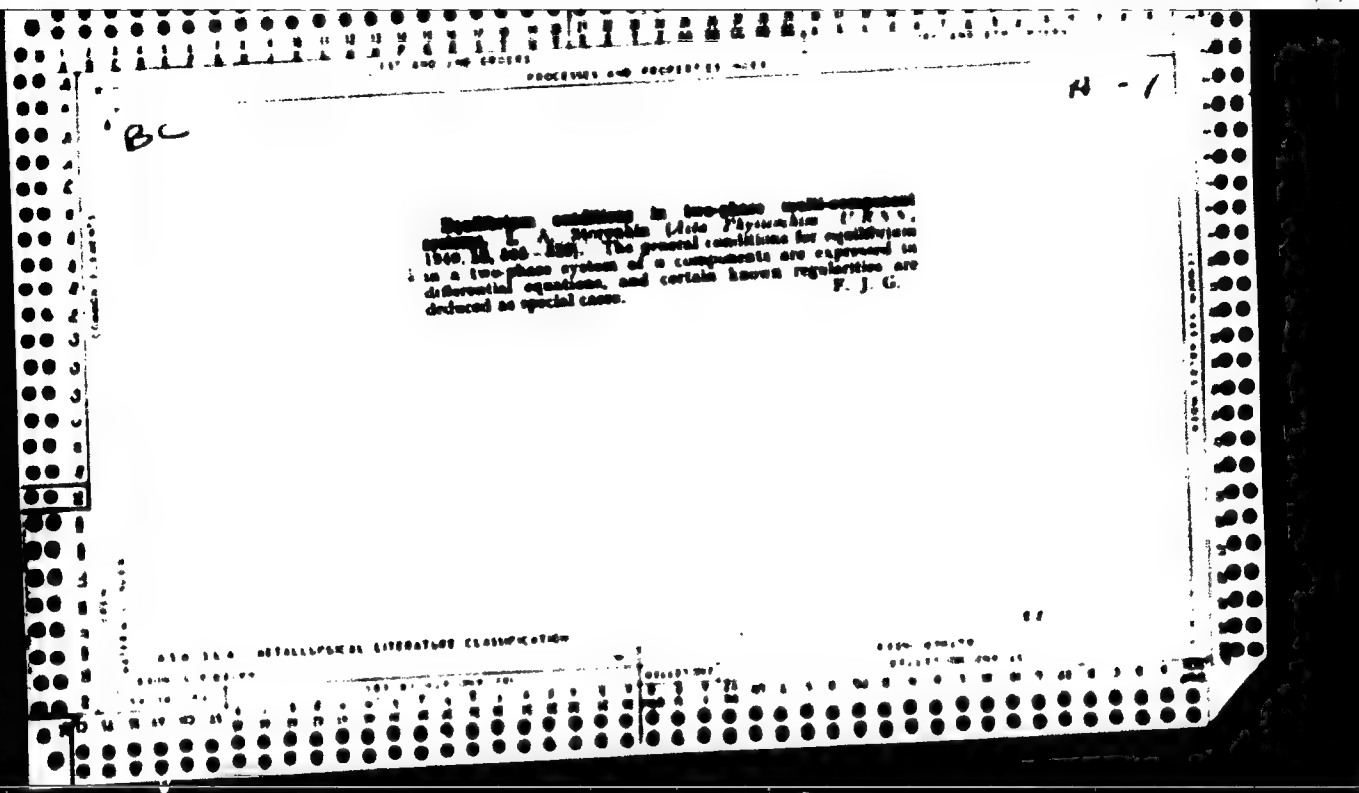
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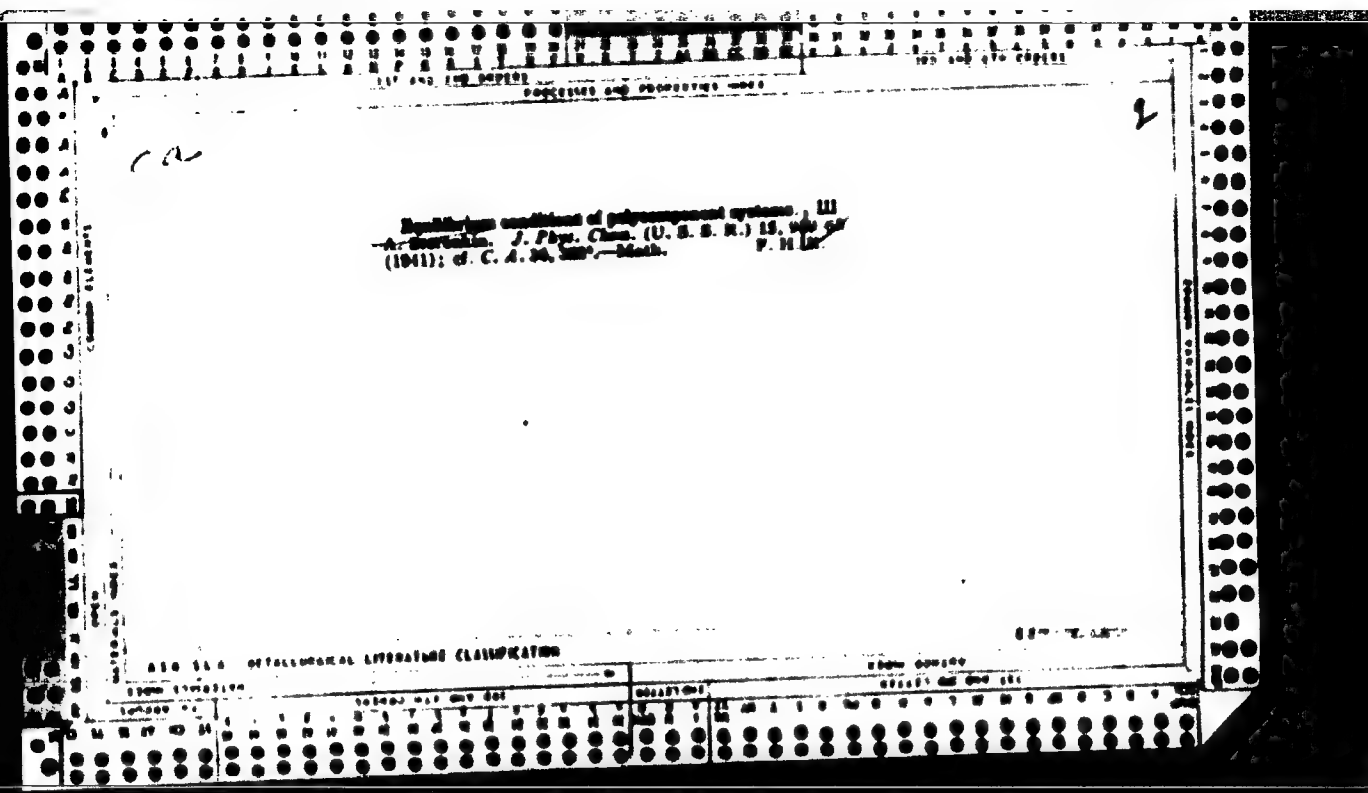
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Equilibrium conditions in many-component two phase systems I. Nonreacting systems A. Scrovinia J. Phys. Chem. 40 S. S. R. 13, No 67 (1941) - See C. A. 35, 2309 II. Reacting systems Ibid 66-77 - The general equl. conditions are discussed. The change of vapor tension as a function of composition is considered in the light of the second Gibbs-Konovalov law, and this law found to be inapplicable to azeotropic systems with more than 3 components. The thermodynamic conditions under which the law is obeyed are deduced. Ideal polycomponent systems always obey the law P. H. H.



USSR/Chemistry - Systems  
Chemistry - Equilibrium

Sep 1947

"Conditions of Equilibrium of Multicomponent Systems,  
Part IV," A. V. Storonkin, 11 pp

"Zhur Fiziches Khim" Vol XII, No 9 p-1069-79

Largely mathematical discussion which is Parts 11 and 12 of an earlier article. Part 11 discusses the pseudo-extremes of pressure and temperature of two-phase n-component systems, and Part 12 deals with the pseudobinary systems and their curves. This work was submitted at the Laboratory of Physical Chemistry, Leningrad Order of Lenin State University. Reference is made to the author's articles in "Zhur Fiz Khim" Vol IV, 1941, pp 68 and 959.

2474

STORONKIN, A. V.

[Conditions for thermodynamic equilibrium in multicomponent systems]  
Ob usloviakh termodinamicheskogo ravновесiya mnogokomponentnykh sistem.  
Izd-vo Leningradskogo gos. ordena Lenina univ., 1948. 120 p. (MLA 9:5)  
(Thermodynamics)

1. STERNIN, A. V., IN ARBY, M. F.

2. USSR (600)

4. Phase Rule and Equilibrium

7. Study of general and partial vapor tensions of the system "hydrogen chloride - sulfuric acid - water." Vest. Len. un. 7 No. 6, 1952

9. Monthly List of Russian Accessions. Library of Congress, May 1953. Incl.

STORONKIN, A.Y.; SUSAREV, H.P.

Thermodynamic relation between the compositions of azeotropic  
mixtures of multicomponent systems. Vest. LGU 8 no.5:91-112 My  
'53. (MIRA 12:7)

(Systems (Chemistry)--Thermal properties)

STORONKIN, A.V.

~~Conditions of equilibrium of multicomponent systems.~~  
~~V. A. V. Storokin (A. A. Zhidakov State Univ., Leningrad). Zhur. Fiz. Khim. 57, 617-24 (1981); Ch. C.A. 45, 2405.~~ -- The conditions of equil. are found mathematically for multicomponent, two-phase systems in which the compn. of one phase is changed by addn. of a small amt. of the other phase. A pseudocritical point may occur if thermodynamic simplification can result from such addn. at const. temp. and pressure. Some special properties of systems having a pseudocritical point of temp. and pressure are considered.  
J. W. Lowery, Jr. *NR*

Physical Chemistry



# SSRA

Equilibrium conditions of multicomponent systems. VI  
A. V. Storonkin and M. P. Sarsky, A. A. Zaitsev, State  
~~Technical University~~ *Zhukovskiy* *27, 1969 or 1970*, *ibid.*  
*Chim. 36, 3211, 48, 24514* — A differential equation is derived  
for the relation of the compn. of a vapor to temp. and pres-  
sure for the case when the compn. of the solid and liq. ac-  
cording to the conditions for thermodynamic equilibrium.  
Approx. formulas are developed for the relation among the  
properties for binary and ternary azeotropic mixts. under  
isothermal and isobaric conditions. A rule is presented for  
the calcn. of the compn. of thermodynamically possible bi-  
nary and multicomponent azeotropic mixts. from the prop-  
erties of binary mixts. contg. common components with  
those for which the calns. are being made. J. R. I.

# U S S R .

The conditions for thermodynamic equilibrium of a ternary, three-phase system of the type solid phase - solution - vapor. 1. The solubility isotherms and the vapor pressure curves for ternary three-phase systems in relation to the nature of the interaction of the components in the liquid phase. A. V. Stepankin, Vysok. Tekhnol. Fiz., No. 4, 1954, No. 2, 115. - Differential equations are developed for the sol. isotherms and for the vapor-pressure curves for solid ternary solns. The type of isotherms is discussed in relation to the interaction of the components in solid ternary solns. that are in equl. with a solid phase contg. a single component. The effect of the change in compo. of such a ternary soln. on its vapor pressure is related to the character of the distribution of the volatile components between the solid and the vapor.

J. Kovar Leach

MA  
Jew

STORONKIN, A.V.

Equilibrium conditions and some other properties of multiphase systems.  
Vest.Len.un.9 no.2:115-128 F '54. (MLRA 9:7)  
(Phase rule and equilibrium)

CHORUKIN, A.M.

USSR

✓ Derivation and limits of applicability of the D. P. Kononov and M. S. Vrevalov laws for binary systems. A. Y. Shtrom. *Vysishk Leningrad. Univ. No. 8, Ser. Khim.* 197-204. *Referat. Zhur., Khim.* 1974, No. 00249 — The applicability of the Kononov laws for isothermal and isobaric conditions are analyzed. The Vrevalov laws and their applicability are derived on the basis of a general thermodynamic relation between pressure, temp., and compn. of the phases present. M. Hough

CH

M  
7/24/74

STORONKIN, A.V.

D.P.Kenevalov, the outstanding Russian physical chemist; 25th anniversary  
of his death. Vest.Len.un.9 no.5:167-176 My '54. (MLRA 9:7)  
(Kenevalov, Dmitrii Petrovich, 1856-1929)

STORONKIN, A.V.

Conditions for the thermodynamic equilibrium of ternary three-phase systems of the type: solid phase -- liquid -- vapor. Part 1. Solubility isotherms and vapor-pressure curves in ternary three-phase systems in connection with the nature of interaction of components in the liquid phase. Vest.Len.un. 9 no.8:169-187 Ag '54.  
(Thermochemistry) (Systems (Chemistry)) (MIRA 8:7)

STORONKIN, A.V.; SHUL'TS, M.M.

Variation in the chemical potentials and partial pressures of components of ternary two-phase systems during isothermal and isobaric change of composition. Part 1. Vest.Len.un. 9 no.11:153-165 M '54. (MLRA 8:7)  
(Systems (Chemistry))

*Stokanov, A. V.*

U.S.S.R. Ministry - Ministry of Defense

Card 1/1 : Pub. 157 - 12/22

Authors : Stokanov, A. V.

Title : About the thermodynamic possible forms of isotherm-isobar curves of  
thermodynamic systems. Part 1.-

Periodical : Zhur. fiz. khim. 28/11, 1951-1951, November 1951

Abstract : The problem concerning the thermodynamically possible isotherm-isobar  
curves is discussed. A method for the analysis of isotherm-isobar curves,  
which is also applicable to solubility isotherms, is presented. A thermodynamic  
isotherm-isobar equation, which is expressed in terms of the  
thermodynamic functions, is derived. A direct connection between the thermodynamic  
functions and the thermodynamic properties is established. The existence of  
such a connection, which is established, is proved. The thermodynamic  
functions (1951-1951). Tables; graphs.

Institution : The A. A. Shchukin State University, Leningrad

Submitted : March 22, 1951



STORONKIN, A.V.  
USSR/Chemistry - Physical chemistry

Card 1/2 Pub. 147 - 14/26

Authors : Storonkin, A. V., and Markuzin, N. P.

Title : Study of vapor pressures of saturated and unsaturated KCl solutions in hydrochloric acid

Periodical : Zhur. fiz. khim. 29/1, 111-119, Jan 1955

Abstract : The vapor pressure of saturated and unsaturated KCl solutions in hydrochloric acid was experimentally investigated at 25C. The form of the solubility isotherm and the curves representing the total and partial vapor pressures of saturated tertiary KCl HCl H<sub>2</sub>O solutions was established on the basis of the thermodynamic theory of tertiary saturated solutions. It was found that the solution with minimum vapor pressure evaporates without any change in its composition.

Institution : The A. A. Zhdanov State University, Leningrad

Submitted : May 19, 1954

Periodical : Zhur. fiz. khim. 29/1, 111-119, Jan 1955

Card 2/2 Pub. 147 - 14/26

Abstract : The values of total and partial pressures for saturated and unsaturated ternary KCl solutions are tabulated. Eight USSR references (1948-1954). Tables; diagrams

*STORONKIN, A.V.*

USSR/ Scientists

Card 1/1 Pub. 127 - 11/13

Authors : Storonkin, A. V., and Dobrotin, R. B.

Title : ~~Review of the D. I. Mendeleev teaching on solutions~~  
Brief review of the D. I. Mendeleev teaching on solutions

Periodical : Vest. Len. un. Ser. mat. fiz. khim. 10/2. 157-171, Feb 1955

Abstract : A brief review is made of the development process together with an analysis of the scientific importance of the basic ideas of the D. I. Mendeleev teaching on solutions. A list of D. I. Mendeleev's works on the theory and chemism of solutions since 1862 is included. Eleven Russian references (1862-1905).

Institution : .....

Submitted : June 29, 1954

STOLIKIN, A.V.; MORACHEVSKIY, A.G.

Applicability of Konovalov's first law to ternary solution -- vapor systems. Zhur.fiz.khim. 29 no.12:2194-2203 D '55. (MLBA 9:5)

1. Leningradskiy gosudarstvennyy universitet imeni A.A. Zhdanova.  
(Phase rule and equilibrium)

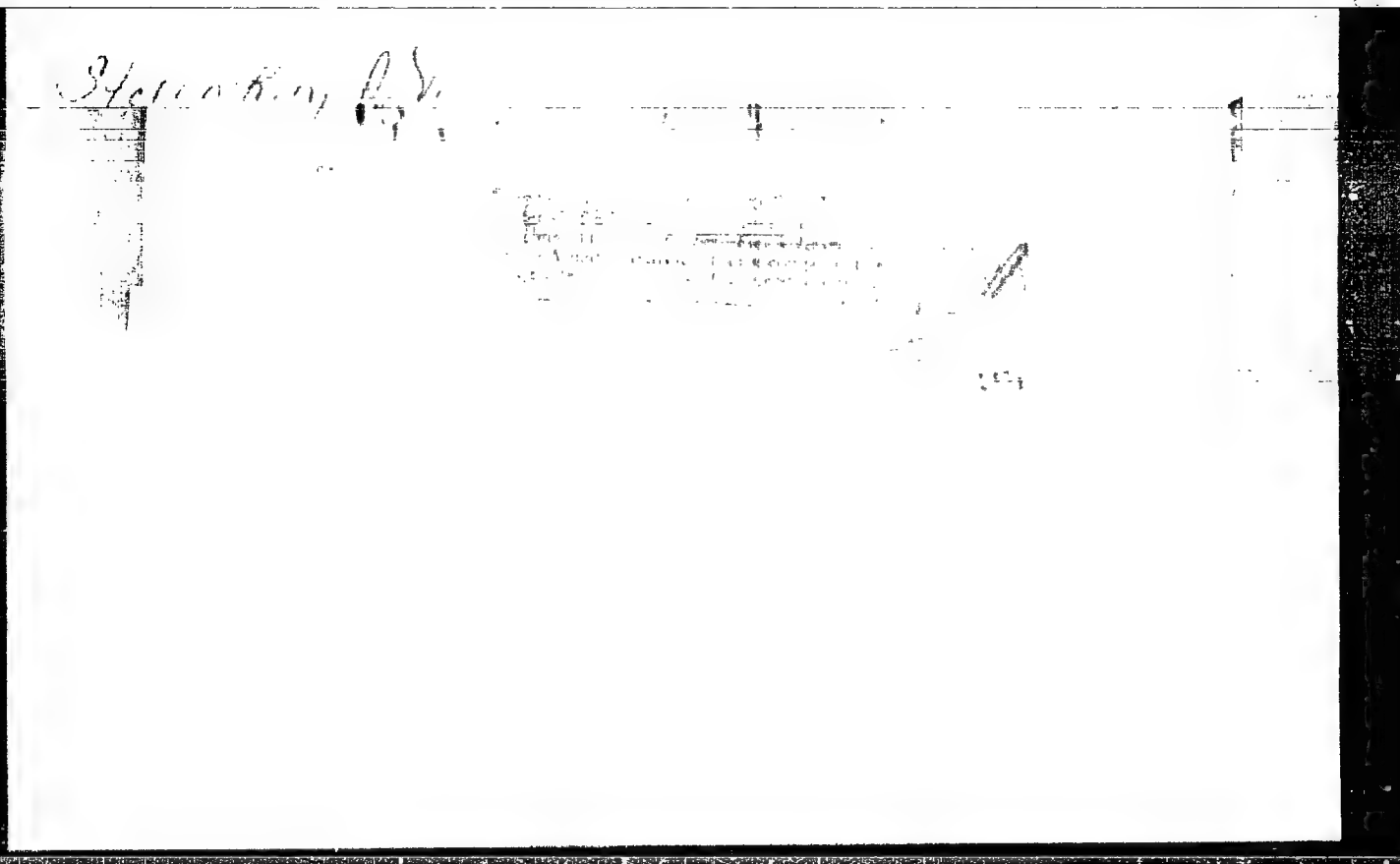
✓ The applicability of Kuonov's first law to ternary systems (alcohols-steam). A. V. Stepanov and A. G. Morachevskii (A. A. Zhdanov State Univ., Leningrad). *Zh. Fiz. Khim.* 29, 2196-2203 (1955). Kuonov's first law (*Vapor Densities of Solutions*, Leningrad, 1928) states that an increase in the concn. of the component that has a higher concn. in the vapor than in the soln. results in an increase in the vapor pressure, and a lowering of the b.p. of the soln. A general solution of the applicability of the law to ternary and more complex solns. is presented. The application is discussed of the law to ternary solns. when plotting the curves along the curves of thermodynamic equilibrium, which intersect the ternary triangle by curves of isopleth pressure and the curves of open vapors.

W. M. Stepanov

Steronkin, A.V.

Effect of compression and temperature on the equilibrium  
between solid and vapor in binary systems. A.V.  
Steronkin and A. G. Mikhlin. *Journal of Chemical  
Physics*, 1954, 21, 10, 1911-1914. The authors  
have calculated the equilibrium vapor pressure of  
the solid phase of the binary systems of the type  
A-B, where A and B are the components of the  
solid phase. The calculation is based on the  
assumption that the solid phase is a perfect  
crystal. The results are compared with the  
experimental data of Steronkin and Mikhlin.

181



Changes in the chemical potentials and in the partial pressures of the components of heterogeneous systems during isothermal isobaric changes in composition. II. *By M. Shul'is and A. V. Sorokina. Vestnik Leningrad Univ. II, No. 22, Ser. Fiz.-Khim. No. 4, 111-23 (1956); cf. C.A. 50, 9126d.*—The relation between changes of intensive and of extensive parameters of heterogeneous systems is derived thermodynamically in a general form. The results are applied at const. pressure and temp. to ternary systems consisting of 2 phases of variable compo. The slopes of the lines are related to the rate of change of therm. potential of a component with respect to its mole fraction in the system as a whole. A graphic method is given for find-

ing the sector within which the tie-lines must lie that connect compo. of ternary solns. and of ideal vapors in equil. with them. *J. D. Baxter.*



STORONKIN, A. V.

The solution-vapor equilibrium in the benzene-cyclohexane-isopropyl alcohol system. A. V. Storokin and A. G. Morachevskii (A. A. Zhdanov State Univ., Leningrad). *Chem. Abstr.* 30, 1: 37-37 (1969). -The exptl. data on the vapor-solid, equil. were used to construct diagrams for the isothermal or isobaric equil. The data verify the conclusion made previously (C.A. 59, 14447) that regions exist in ternary systems that do not obey Kenworthy's first rule.

J. Kovar Leach

Chem

STOKKIN, A.V.

V12958\* (Rus.) The Effect of Temperature and Pressure  
on the Composition of Ternary Azeotropic Mixtures  
of Ethanol with Acetic Acid and Acetic Anhydride  
by A. G. Morozov and L. S. Kuznetsov  
Zh. Fiz. Khim. 40, 10, 1966, 2485-2487  
Abstract: The effect of temperature and pressure on the composition of ternary azeotropic mixtures of ethanol with acetic acid and acetic anhydride is studied. The results show that the composition of the azeotropic mixtures changes with temperature and pressure. The data are presented in tables and graphs.

STORANKIN, A.V.

Thermodynamically possible isobarotherms shapes of ternary systems. A. V. Storankin, A. A. Zolotarev, Izv. Akad. Nauk SSSR Khim. 1981, 1111-1114. The "isobarotherm" term was coined for families of isotherms in the four corners of which the pressures and temperatures of two of 2 phases of ternary systems are expressed. The concept of phase effects is introduced in order to det. the influence of a change in the phase composition on the mutual transformation of phases in the state of the components in the respective phases. The differential equations for the isotherm isobars are expressed in terms of the phase effects, and 3 theorems are formulated defining the relation between the phase effects and the form of the isobarotherm. The thermally possible shapes of the isobarotherms are discussed, and the analysis of their shapes proves their applicability to the study of ternary systems. W. M. Sternberg



USSR Physical Chemistry. Thermodynamics, Thermochemistry. B-9  
Equilibria, Physical-Chemical Analysis. Phase Transitions.

Abs Jour: Ref Zhur-Khimiya, No 5, 1957, 14636

Author : A. V. Storonkin, A. G. Morachevskiy

Inst : -

Title : Concerning The Application of Konovalov's First Law to  
Ternary Systems Solution-Vapor

Orig Pub: Zh. fiz. khimii, 1955, 29, No 12, 2194-2203

Abstract: A general solution of the question concerning the applicability of the first law of Konovalov to ternary systems is given. The applicability of the law is proved thermodynamically in cases that the solution composition changes along the curves of the thermodynamical simplification, the secants of the composition triangles, the curves of incomplete extremes, and curves of open evaporation. There are regions where the law is not carried out, if the composition was altered by the addition of one of the components of ternary systems producing azeo-

Card 1/2

EQUILIBRIA, PHYSICAL-CHEMICAL ANALYSIS

Abs Jour: Ref Zhur-Khimiya, No 5, 1957, 14636

Abstract: mixtures. The possibility of the application of these regions are shown.

Card 2/2

STORONKIN, A.V.; MORACHEVSKIY, A.O.

Effect of changes in the composition and temperature on the equilibrium  
between solutions and vapors in ternary systems. Vest.Len.un.11 no.4:  
69-82 Y '56. (MLRA 9:7)  
(Systems (Chemistry)) (Phase rule and equilibrium)

USSR/Statistical Physics - Liquids

D-8

Abs Jour : Referat Zhur - Fizika, No 5, 1957, 11525

Author : Storonkin, A.V.

Inst :

Title : Certain Problems of the Thermodynamics of Systems, that Obey the Conditions of Isolation of Matter

Orig Pub : Vestn. Leningr. un-ta, 1956, No 16, 74-84

Abstract : Discussion of several general thermodynamic relations for open systems, i.e., such systems in which the matter can be exchanged with the surrounding medium. The most general case of a multi-component and multi-phase system, in which chemical reactions can take place, is considered. A detailed analysis is made of the Gibbs phase rule as applied to all possible variants of such systems, and also to the problem of the meaning and applicability of thermodynamic potentials, particularly the chemical potential, for such systems. It is emphasized that these

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USSR/Statistical Physics - Liquids

D-8

Abs Jour : Ref Zhur - Fizika, No 5, 1957, 11525

importance are very important for geology, and many  
works of other writers are critically surveyed.

Card 2/2



*SECRET*  
USSR/ Chemistry - Physico-chemical analysis

Card 1/2      Pub. 147 - 27/35

Authors      : Storonkin, A. V.

Title        : Critique of certain principles and concepts of the physico-chem. analysis

Periodical   : Zhur. fiz. khim. 30/1, 206-216, Jan 1956

Abstract     : The author offers a critique of the continuity and conformity principles as well as concepts of certain singular points of physico-chemical diagrams. The chemical and thermodynamic difference between the conception of a phase and solution is explained. It is pointed out that some special points on the "composition - state" diagram pertaining to nondissociating specific compounds are the end points of various curves representing qualitatively

Institution   : Leningrad State University, im. A. A. Zhdanov

Submitted    : April 2, 1955

Card 2/2      Pub. 147 - 27/35

Periodical : Zhur. fiz. khim. 30/1, 206-216, Jan 1956

Abstract : different relations between properties and composition. In order to eliminate errors of false concepts the author suggests certain changes in the terminology and definitions of certain concepts pertaining to physico-chem. analysis. Twelve USSR references: (1934-1955). Graphs.

STORONKIN, A.V.; MORACHEVSKIY, A.G.

Solution-vapor equilibrium in the system: benzene -- cyclohexane --  
--isopropyl alcohol. Zhur.fiz.khim. 30 no.6:1297-1307 Ja '56.  
(MLRA 9:10)

1. Leningradskiy gosudarstvennyy universitet imeni A.A. Zhdanova.  
(Benzene) (Cyclohexane) (Isopropyl alcohol)

Distr: 4E4J

Three-layered solutions of triethylamine-phosphoric water.  
N. P. Markunin and A. V. Staryukhin. *Vestnik Leningrad. Univ.* 12, No. 10, 337. *Fiz. i Khim.* No. 2, 123-47 (1957).  
The liquid-liquid-vapor and liquid-vapor equil. of Et<sub>3</sub>N-PhOH-H<sub>2</sub>O were studied experimentally at 15° and 35°, and extensive diagrams, tables, and math. equations are given. The binodal curves of the system at 15° are discussed in the light of phase effect theory; their S-shape is not due to contamination. The change in partial and total vapor pressure vs. soln. compn. was studied, and agreed with thermodynamic theory.  
Malcolm Anderson

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